

M I C H I G A N Table CT5. Commercial Sector Energy Consumption Estimates, Selected Years, 1960-2016, Michigan

Year	Coal	Natural Gas ^a	Petroleum						Hydro-electric Power ^{e,f}	Biomass	Geothermal ^f	Solar ^{f,h}	Retail Electricity Sales	Net Energy ^{f,i}	Electrical System Energy Losses ^j	Total ^{f,i}
			Distillate Fuel Oil	HGL ^b	Kerosene	Motor Gasoline ^c	Residual Fuel Oil	Total ^d								
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels						Million Kilowatthours	Wood and Waste ^{f,g}		Million Kilowatthours				
1960	982	43	3,212	192	566	324	1,175	5,468	NA	--	--	NA	6,381	--	--	--
1965	760	85	3,019	232	946	536	839	5,572	NA	--	--	NA	9,124	--	--	--
1970	378	133	3,482	444	403	804	558	5,691	NA	--	--	NA	13,021	--	--	--
1975	279	182	3,589	516	224	954	390	5,672	NA	--	--	NA	14,596	--	--	--
1980	243	190	3,123	333	15	823	225	4,519	NA	--	--	NA	16,765	--	--	--
1985	197	158	2,449	438	11	699	274	3,872	NA	--	--	NA	18,421	--	--	--
1990	214	159	2,010	646	18	770	71	3,516	0	--	--	0	21,986	--	--	--
1995	221	194	1,638	792	102	77	5	2,614	0	--	--	0	32,153	--	--	--
1996	238	201	1,766	1,063	149	77	5	3,060	0	--	--	0	32,896	--	--	--
1997	167	192	1,917	1,005	56	76	55	3,108	0	--	--	0	33,231	--	--	--
1998	129	163	1,506	939	66	208	2	2,720	0	--	--	0	34,710	--	--	--
1999	18	179	1,401	1,064	37	171	3	2,676	0	--	--	0	36,040	--	--	--
2000	12	187	1,577	1,095	33	159	5	2,868	0	--	--	0	36,793	--	--	--
2001	8	174	1,525	1,368	35	433	17	3,378	0	--	--	0	35,925	--	--	--
2002	234	176	966	1,461	28	247	64	2,767	0	--	--	0	36,835	--	--	--
2003	28	186	1,184	1,582	19	203	90	3,078	0	--	--	0	35,391	--	--	--
2004	161	175	1,063	1,547	22	191	49	2,872	0	--	--	0	38,632	--	--	--
2005	141	175	1,267	933	28	207	4	2,440	0	--	--	0	39,600	--	--	--
2006	8	154	1,337	915	26	91	2	2,370	0	--	--	0	39,299	--	--	--
2007	155	164	1,128	911	8	82	0	2,129	0	--	--	0	40,047	--	--	--
2008	190	172	1,055	998	7	84	56	2,200	0	--	--	0	38,974	--	--	--
2009	246	164	1,358	690	8	127	12	2,195	0	--	--	1	37,870	--	--	--
2010	177	152	1,130	687	13	82	76	R 1,988	0	--	--	2	38,123	--	--	--
2011	163	164	1,240	654	9	79	98	R 2,080	0	--	--	9	38,613	--	--	--
2012	90	145	1,172	751	3	78	47	R 2,052	0	--	--	23	38,514	--	--	--
2013	73	172	1,337	943	7	81	1	R 2,369	0	--	--	24	37,698	--	--	--
2014	68	186	1,161	929	9	3,199	4	R 5,303	0	--	--	26	37,349	--	--	--
2015	47	168	1,335	732	9	R 1,998	3	R 4,078	0	--	--	27	38,441	--	--	--
2016	14	159	1,132	949	11	2,017	(s)	4,109	0	--	--	30	38,986	--	--	--

Trillion Btu

1960	24.3	44.5	18.7	0.7	3.2	1.7	7.4	31.7	NA	0.4	NA	NA	21.8	122.8	53.8	176.6
1965	18.7	86.0	17.6	0.9	5.4	2.8	5.3	31.9	NA	0.3	NA	NA	31.1	168.1	74.3	242.4
1970	9.0	134.7	20.3	1.7	2.3	4.2	3.5	32.0	NA	0.3	NA	NA	44.4	220.4	107.5	327.9
1975	6.5	186.4	20.9	2.0	1.3	5.0	2.4	31.6	NA	0.3	NA	NA	49.8	274.6	119.5	394.1
1980	5.9	194.0	18.2	1.3	0.1	4.3	1.4	25.3	NA	1.0	NA	NA	57.2	283.5	137.4	420.9
1985	4.8	161.4	14.3	1.7	0.1	3.7	1.7	21.4	NA	1.0	NA	NA	62.9	250.9	144.0	394.9
1990	5.3	168.5	11.7	2.5	0.1	4.0	0.4	18.8	0.0	7.3	0.0	75.0	289.2	191.4	460.6	
1995	5.4	201.9	9.5	3.0	0.6	0.4	(s)	13.6	0.0	9.0	0.1	0.0	109.7	335.2	237.1	572.4
1996	5.9	208.3	10.3	4.1	0.8	0.4	(s)	15.6	0.0	10.8	0.1	0.0	112.2	348.4	251.3	599.7
1997	4.1	200.0	11.2	3.9	0.3	0.4	0.3	16.1	0.0	11.0	0.2	0.0	113.4	340.1	257.4	597.5
1998	3.2	171.1	8.8	3.6	0.4	1.1	(s)	13.8	0.0	9.4	0.2	0.0	118.4	311.7	278.8	590.6
1999	0.4	186.8	8.2	4.1	0.2	0.9	(s)	13.4	0.0	9.4	0.2	0.0	123.0	329.0	283.2	612.2
2000	0.3	193.6	9.2	4.2	0.2	0.8	(s)	14.4	0.0	8.6	0.2	0.0	125.5	340.1	292.4	632.5
2001	0.2	179.1	8.9	5.2	0.2	2.3	0.1	16.7	0.0	2.6	0.2	0.0	122.6	320.6	284.6	605.2
2002	5.5	179.7	5.6	5.6	0.2	1.3	0.4	13.1	0.0	6.5	0.3	0.0	125.7	330.7	291.3	622.0
2003	0.7	191.7	6.9	6.1	0.1	1.1	0.6	14.7	0.0	6.5	0.4	0.0	120.8	334.7	277.3	612.0
2004	3.9	179.6	6.2	5.9	0.1	1.0	0.3	13.5	0.0	7.0	0.4	0.0	131.8	336.3	306.2	642.6
2005	3.4	177.2	7.4	3.6	0.2	1.1	(s)	12.2	0.0	8.3	0.5	0.0	135.1	336.7	315.3	652.1
2006	0.2	156.7	7.8	3.5	0.1	0.5	(s)	11.9	0.0	8.3	0.5	0.0	134.1	311.7	311.7	623.4
2007	3.8	167.4	6.5	3.5	(s)	0.4	0.0	10.5	0.0	8.7	0.5	0.0	136.6	327.5	315.5	642.9
2008	4.9	176.3	6.1	3.8	(s)	0.4	0.4	10.7	0.0	9.1	0.6	0.0	133.0	334.5	298.9	633.4
2009	6.4	167.2	7.8	2.6	(s)	0.6	0.1	11.3	0.0	7.3	0.7	(s)	129.2	322.1	279.6	601.7
2010	4.6	154.8	6.5	2.6	0.1	0.4	0.5	10.1	0.0	7.5	0.7	(s)	130.1	R 307.8	285.8	593.6
2011	4.1	165.8	7.2	2.5	0.1	0.4	0.6	10.7	0.0	7.5	1.1	0.1	131.7	R 321.0	289.3	R 610.4
2012	2.1	147.1	6.8	2.9	(s)	0.4	0.3	10.4	0.0	7.8	0.9	0.2	131.4	R 299.8	281.3	R 581.1
2013	1.7	175.1	7.7	3.6	(s)	0.4	(s)	11.8	0.0	7.2	0.9	0.2	128.6	R 325.5	275.2	600.7
2014	1.6	189.9	6.7	3.6	0.1	16.2	(s)	R 26.5	0.0	7.5	0.9	0.2	127.4	R 354.1	270.5	R 624.6
2015	1.2	R 173.9	7.7	2.8	(s)	10.1	(s)	R 20.7	0.0	7.9	0.9	0.3	131.2	R 336.0	261.7	R 597.7
2016	0.3	165.4	6.5	3.6	0.1	10.2	(s)	20.4	0.0	8.9	0.9	0.3	133.0	329.2	263.8	593.0

^a Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.

^b Hydrocarbon gas liquids, assumed to be propane only.

^c Beginning in 1993, includes fuel ethanol blended into motor gasoline. There is a discontinuity in this time series between 2014 and 2015 because of coverage. See Technical Notes, Section 4.

^d Includes small amounts of petroleum coke not shown separately.

^e Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.

^f There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.

^g Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

^h Solar thermal and photovoltaic energy. Excludes a small amount of solar thermal energy consumed as heat that is included in the residential sector.

ⁱ For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

Beginning in 2009, includes a small amount of wind energy consumed by commercial utility-scale facilities. Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.

^j Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

-- = Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Totals may not equal sum of components due to independent rounding. • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. • The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at <https://www.eia.gov/state/seds/seds-data-complete.php>.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.